NCTA
NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION

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EX PARTE

January 4, 2005

Mr. Jonathan Cody
Legal Advisor, Office of Chairman Michael Powell
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: CS Docket No. 97-80

Dear Mr. Cody:

The National Cable & Telecommunications Association ("NCTA") has recently met with Commission staff to demonstrate why the Commission should eliminate the July 2006 prohibition on the deployment by cable operators of integrated set-top boxes (the "Separate Security Requirement"), or at a minimum, extend the deadline for the Separate Security Requirement for at least 18 months. NCTA has since become aware of comments and assertions made to the Commission by Intel, Microsoft and TiVo on this issue. We address some of those claims in this letter.[1]

Intel, Microsoft and TiVo argue that only by requiring cable operators to rely on CableCARDs for their own leased set-top boxes will the costs of CableCARD-enabled retail navigation devices come down, and their ability to innovate and compete be protected. Both of these premises are superficially appealing, but lack any substantive support.

CableCARD Costs

CableCARD costs are not the problem in developing a market for Unidirectional Digital Cable Products ("UDCPs"). It is important to recall what the CableCARD is and does. CableCARDs are security authorization devices, in which the authorization of conditional access is removed from the motherboard and placed in a separate card. It was created to permit retail navigation devices to receive decrypted cable signals coming from the Host-side interface of the

[1] We will also take this opportunity to respond to comments made in a recent *ex parte* filing by Intel. *See* Letter from Jeffrey Lawrence to W. Kenneth Ferree, Chief, Media Bureau, CS Docket No. 97-80 (undated)("*Intel ex parte*").

CableCARD. Host devices equipped with compatible circuitry can receive decrypted cable services from cable networks through CableCARDs just as set-top boxes with integrated security can receive decrypted cable services and pass them along to retail TVs. The CableCARD-enabled devices have the added advantage of being nationally portable, available at retail, and integrated with other non-cable features or functionalities, limited only by the imagination of the CE manufacturer.[2]

Intel, Microsoft and TiVo argue that the retail cost to consumers for Unidirectional Digital Cable Products ("UDCPs") will decline dramatically if cable operators are required to rely on and make volume purchases of CableCARDs for their leased set-tops. That argument bears no relationship to reality. CableCARDs are necessary for portable retail devices to decrypt cable services. As the *New York Times* has noted, "it costs a lot less to rent a CableCARD than a cable box."[3] The actual retail devices that CE manufacturers are bringing to market cost $1,000, $2,000 and up – a market on which the lease cost of a CableCARD has no effect. The competition that will benefit consumers is among UDCP manufacturers, all of whom use the same CableCARD. CE market analysts, for example, have been tracking rapid declines in the price of plasma TVs. What will impact the market is CE manufacturers reducing the prices of their HDTVs to something the average American can afford, not the price of the CableCARD.[4]

CableCARD costs include more than hardware. Intel has asserted that the costs associated with a CableCARD are too high. We have been informed that Intel apparently obtained a CableCARD, and then, without the knowledge of any cable operator or CableCARD vendor, broke into the CableCARD and examined its internal components, in order to take issue with the number and age of its component chips.

First, as NCTA has previously explained,[5] the costs associated with CableCARDs are based on many items in addition to the manufacturer's "bill of materials" for the included hardware alone. The cost to the cable operator – and therefore to the cable customer – includes not only the costs of the physical components of the CableCARD, but (as is true for many sophisticated devices) the licensing fees and other royalties for the intellectual property used in each CableCARD. Further, cable operators obtain and pay for significant warranties and

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[2] The CE parties to the "one-way" Plug and Play Agreement agreed that the first step in CableCARD-enabled devices would be to develop "one-way" unidirectional devices (UDCPs). While UDCPs are "one-way," even "one-way" CableCARD-delivered services include such attractive cable features as high-definition premium channels.

[3] David Pogue, *Streamlined Cable TV in a Card*, New York Times, December 30, 2004, at G1, G5.

[4] For example, one recent consumer survey indicates that "the 5 most important reasons they'd choose or not choose a particular technology were price, reliability, picture quality, screen size, and overall set size." "There are clear differences in how consumers perceive large-screen TV choices," Consumer Electronics Daily, January 3, 2005, at 6.

[5] Letter from Neal M. Goldberg to W. Kenneth Ferree, Chief, Media Bureau, CS Docket No. 97-80, December 20, 2004, at 3-4 ("*NCTA Letter*").

indemnification from CableCARD vendors and for the underlying security purchased with the CableCARD. Such warranties and indemnifications are required in order to make CableCARDs a working solution for CableCARD-Host devices, and as experience has shown, have helped to make CableCARD deployment a reality across the cable industry. It is therefore inaccurate to assess the costs of CableCARD, whether actual or theoretical, based solely on an examination of the physical card.[6]

Second, the costs associated with CableCARD deployment are not governed solely by the CableCARD itself. Retail devices that accept CableCARDs must contain associated hardware and software in the Host device – costs that Intel has entirely ignored. This is not the first time that CE interests have made this mistake.[7] The cable industry presented expert findings on the true cost of CableCARDs and the associated interface in the *NCTA Cost Report,* filed with the Commission in this docket on August 2, 2002, that the per-unit cost to a cable operator of a CableCARD-Host combination would be at least $73 more than the cost of an integrated set-top box with the same functionality. Market reality since then has only corroborated those findings.

Third, it is not correct to assert that the CableCARD should contain an integrated chip, rather than the small handful of chips it contains today. The CableCARD is a multifunction device, which is required to handle conditional access, decryption, and transport, all of which utilize different specialized chips. An "integrated chip" solution would require the design, development and production of a custom-built integrated chip handling all of these discrete functions. That would then need to be integrated into the physical card, which would require a substantial re-configuration of the internal workings of the CableCARD. This could have considerable impact on the 140 certified, verified, and self-verified UDCPs that now interoperate with CableCARDs. Therefore, Intel's assertions about the benefits of using integrated chips in CableCARDs do not withstand scrutiny.

Fourth, it is true that the secure microprocessor component of the CableCARD is based on "tried and true" technology. That is to be expected: the CableCARD was originally designed in 1997 and then developed to satisfy the FCC requirement that cable operators have CableCARDs (then called "Point of Deployment modules" or "PODs") available by July 2000. Where a technology has proven to have worked, and has been interoperating with over 140 certified, verified and "self-verified" devices, it is asking for trouble to use a different

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[6] In making this point, we are *not* arguing, as some have erroneously suggested, that these costs are "additional" costs above and beyond what security in an integrated device will cost. *See* Letter from Julie M. Kearney, CEA, to W. Kenneth Ferree, Chief, Media Bureau, CS Docket No. 97-80, December 21, 2004, at 1. Rather, the point is that these are costs that must be incurred in the production and purchase of a CableCARD by an operator (regardless of whether these costs are "common to both renewable and hardwired security"). And they are costs which will not be appreciably reduced with volume production and which Intel and others have ignored by focusing on simply the cost of the CableCARD hardware alone.

[7] See *NCTA Cost Report,* CS Docket No. 97-80, Filed August 2, 2002, and Declarations of Kevin S. Wirick and Dr. William E. Wall, attached to Letter from Neal M. Goldberg, NCTA, to W. Kenneth Ferree, CS Docket No. 97-80, January 7, 2003 (rebutting the opinion of Jack W. Chaney as to the probable costs of CableCARDs).

technology. The axiom – "if it ain't broke, don't fix it," is as true in the production of CableCARDs as it is in the production of televisions, DVD players, and even personal computers. Again, there is no factual basis for claims that replacing older working components of the CableCARD would result in anything more than cost *increases* for consumers. Further, unnecessarily replacing perfectly functioning *security* components of existing technology does nothing more than create potential security issues with respect to these untested replacement components. The cable industry will continue to leverage existing technologies to provide ongoing cost and security benefits to consumers.

Intel's judgment in this area is not credible. Intel is not a builder of CableCARDs, nor does Intel have any experience in cable technology.[8] In addition, despite numerous approaches from both representatives of the cable industry and individual cable operators, Intel has yet to actually work with the cable industry or a single cable operator in the development of any digital video products. Intel is not producing a CableCARD-Host device, nor has Intel made public any plans to develop such a device.

As we have noted elsewhere,[9] Intel's judgment in predicting the eventual cost of new digital television technology has a questionable track record. Had the cable industry miscalculated its deployment of CableCARDs as badly as Intel miscalculated its ill-fated "foray" into the digital television market, the opportunity to enable a retail market for CableCARD Host devices to develop would have been stillborn.[10]

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[8] Perhaps this is why Intel has such a distorted view of the market for cable equipment and why it can assert that "[l]ittle has changed since 1996...." *Intel ex parte* at 1. To believe that, Intel must ignore the 1998 FCC rules requiring cable operators to have separate security modules available for retail devices by July, 2000 (which cable did); the 2002 cable-CE Plug and Play Agreement (providing for Unidirectional Digital Cable Ready products); the 2003 FCC rules implementing the Plug and Play Agreement and requiring, among other things, cable operators to ensure that their headends and other equipment meet standards to support CableCARD-enabled devices; the over 140 different CableCARD-enabled devices now available at retail from 11 manufacturers; and the over 10,000 CableCARDs deployed by cable operators, with numbers growing every week. In any event, as Chairman Powell has said, "It goes well beyond the statutory objective to decide the government's role is not merely to assure availability but also success for manufacturers and retailers." Commercial Availability of Navigation Devices, *Reconsideration Order*, 14 FCC Rcd 7596, 7632 (Commissioner Powell, Dissenting in Part)("*Reconsideration Order*").

[9] *See NCTA Letter* at 4, n5, *citing* John Markoff, *The Disco Ball of Failed Hopes and Other Tales From Inside Intel*, The New York Times, Nov. 29, 2004, at C1. Intel has observed that, in quoting from this article, NCTA omitted a sentence that had noted the "LCOS display technology has proved vexing to many other consumer electronic companies because it is so difficult to manufacture." *See Intel ex parte* at 2. Even if that qualification is true, however, it has no bearing on our main point, *i.e.*, that Intel's credibility in estimating the cost for developing a new technology has been called into question by independent analysts. Given that Intel is not even developing CableCARD-enabled products nor has it announced an intention to do so, its cost estimates must be taken with a grain of salt.

[10] *Id.* ("[T]he company's simulation models showed that 95 percent of the chips from each test wafer would be usable, while the actual yields were closer to 4 percent. High manufacturing yields are the holy grail of the chip-making industry but Intel has been unable to translate its traditional prowess to the new technology. That gap meant that Intel was unable to drive the cost of the chips down in the same way it has traditionally lowered the costs of its microprocessors."). Intel suggests that citation of this article was an "ad hominem attack" and that its

Innovation

Microsoft, Intel and TiVo contend that the cable industry is attempting to obtain an unfair advantage for a supposed "monopoly" in customer premises equipment, at the expense of CE innovation.[11] Again, this unsupported contention bears no relationship to fact.

Cable does not have or want a monopoly in navigation devices. As the Commission knows, cable operators do not have any ownership interest in set-top box manufacturers. In addition, the lease fees for most cable set top boxes are price capped under FCC regulations. Moreover, retailers are free to purchase and sell the same digital set top boxes as MSO's lease to their customers, but they have shown no interest in doing so.[12] In short, cable operators do not have – and do not want to have – a monopoly in customer premises equipment, nor would they derive any economic benefit from having one.

Claims that CableCARD limits innovation are specious. TiVo's claims apparently concern its ability to build a "dual tuner" DVR. TiVo can do so now by including two CableCARD interfaces in such a device – exactly the solution TiVo asked the FCC to mandate in implementing the cable-CE Plug and Play Agreement.[13] Likewise, Microsoft and Intel have the option whether or not they build CableCARD-Host devices, and to date, they have chosen not to do so. Cable operator provision of leased set-top boxes with integrated security has had no negative effect on innovation of new products for the digital television market. Members of the CE community have gone to market with CableCARD-enabled devices; there are now over 140

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use was "a demonstration of cable operators' fear of vigorous competition in a new market segment." *Intel ex parte at 2.* To the contrary, cable welcomes new entrants into the market for CableCARD-enabled equipment which accesses its services. Cable is in the business of selling *services*, not *equipment* – equipment which it must lease at government-mandated rates in any event. It is in cable's interest to have as many devices that can access its services in the market because it is in vigorous competition for video customers with DBS providers, among others. Intel, which is not building such a "Digital Cable Ready" device, nor announced plans to do so, can hardly be heard to complain about competition in the Digital Cable Ready equipment market. And, in any event, requiring cable operators to lease set-top boxes with CableCARDs has no beneficial effect on competition in any market, except to drive up the cost of cable service to customers, benefiting cable's video competitors.

[11] *Intel ex parte* at 1.

[12] *See* Ex Parte Letter from Robert Sachs, President and CEO, National Cable & Telecommunications Association to the Honorable Michael K. Powell, Chairman, Federal Communications Commission, filed in CS Docket No. 97-80 (October 10, 2001)(Cable operators commit to allowing the very same integrated digital set-top boxes they provide to be made available to consumers through retail outlets).

[13] *See NCTA Letter* at 6-7 (Quoting TiVo Comments and NCTA Reply Comments in FCC Plug and Play Rulemaking). As described in the *NCTA Letter*, it was the cable industry that suggested the possibility of a "multistream" CableCARD as another solution to TiVo's "dual tuner" concerns. It is bad form, to say the least, for TiVo to criticize the cable industry for doing exactly what it asked cable to do as far as a "dual tuner" device was concerned, particularly when the "multistream" CableCARD solution which it now apparently embraces was first volunteered and then developed by cable to address TiVo's concerns.

different CableCARD-Host models available at retail since the introduction of CableCARDs by cable operators less than 6 months ago.

Many of these devices support innovative features such as combination DTV-personal video recorder functionality, new program guides, a variety of screens and networking interfaces, and photo readers. The cable industry has stepped up to its promise to make CableCARDs work for such devices, without having to redesign their own set-tops to move decryption out of the box and into a card, entailing costs and delays that bring no new functionality or benefit to cable customers.[14] The fact that cable signals can be decrypted inside a leased set-top rather than in a CableCARD plugged into a retail device has nothing to do with the pace of innovation by CE.

Imposing a Separate Security Requirement on cable operators' leased set-top boxes will do nothing to change the state of the market except add unnecessary costs for cable operators and cable customers without any benefits to them. Saddling cable with extra costs, however, would benefit TiVo and Microsoft.

Both TiVo and Microsoft produce devices today that aggregate content from a variety of sources (not only cable, but also Internet delivery, satellite and terrestrial broadcast) and permit the display or recording of such content by the consumer. Both TiVo and Microsoft are exploring new transmission and distribution paradigms that will compete directly with traditional cable. Microsoft's own digital rights management technology has been licensed for use in services that will distribute video content over high-speed Internet access. TiVo has recently announced its own plans to deploy a service that would allow its subscribers to distribute recorded content over the Internet. Both services squarely compete with traditional cable distribution. Their insistence that cable incur a new cost should be examined critically, because both companies stand to benefit in the competitive marketplace by saddling cable with needless costs that do nothing for the consumer.

TiVo's argument is particularly suspect. Approximately half of TiVo's subscribers are DirecTV subscribers.[15] As of January 31, 2004, of over 1.3 million subscriptions to the TiVo service, fully 676,000 were acquired only by reason of TiVo's contractual relationship with DirecTV.[16] As TiVo itself states: "*We are highly dependent on our relationship with DirecTV.*"[17] "*If our current agreement with DirecTV expires without being renewed, amended*

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[14] *NCTA Letter* at 2. It is instructive to note that cable operators have been making CableCARDs work in a wide variety of certified, verified and "self-verified" devices permitted under the Plug and Play Agreement. Indeed, the same CableCARD from the same cable operator will sometimes work perfectly in one manufacturer's device but not in another's. *See "Streamlined Cable TV in a Card,"* New York Times, December 30, 2004, at G1, G5 (CableCARD from Cablevision works "flawlessly in Panasonic Viera DTV set, but the "Sharp Aquos wasn't quite as accommodating."). That can hardly be the fault of the CableCARD or the cable operator, nor will requiring cable operators to lease CableCARD-enabled set-top boxes change the situation.

[15] TiVo Inc. Form 10-K filing for the fiscal year ended January 31, 2004, pages 3, 5.

[16] *Id.*, at 5.

[17] *Id.*, at 34 (emphasis in original). *See also* Id. at 3, 5-6, 8, 35, 76-77, 78-79.

or replaced, our business could be harmed."[18] TiVo's agreement with DirecTV uses *integrated* security. TiVo has been unable to get any cable operators to agree on its terms for deployment of its service inside leased cable set-top boxes. TiVo now seeks to penalize cable operators, for the sole purpose of advantaging its business and its business relationship with its dominant customer, DirecTV.

It is prudent to understand these arguments for what they really are: not for the lofty goal of enshrining a "right to innovate," but rather to hobble the cable industry and to tax its customers, while these companies aggressively deploy products for the cable industry's direct competitors. Any action by the Commission permitting such a state of affairs would be an unwarranted level of government intrusion into an already vibrant and competitive marketplace.

Cable operators want to give consumers a choice. Cable customers may or may not have a UDCP. Even UDCP owners may or may not want a set top box, or even subscribe to cable. But cable operators have made available CableCARDs to customers who own a UDCP and who want a CableCARD, and they have made it less costly to lease than a set top box. Forcing every customer in the cable market to take a CableCARD will do nothing to make the market for UDCPs better.

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With the Commission's adoption of rules requiring cable industry support for CableCARD-enabled devices and the cable industry's implementation of the 2002 CE-Cable agreement on plug and play functionality, its support for CableCARD Host devices and its continued effort and participation in the two-way negotiations, there is no reason to retain the Separate Security Requirement. The Separate Security Requirement will amount to nothing more than a tax on the cable industry and its customers, and will do nothing more than unfairly disadvantage cable against ever-strengthening multichannel video competitors.

To assert, as Intel does,[19] that such a government-imposed burden (with no accompanying benefit) is a "market-based alternative," turns the world on its head. Instead, as Chairman Powell has said, the Separate Security Requirement forces cable operators to make procurement and technology decisions "so as to avoid the potential for stranded investment, not on the basis of what might be best for their customers," and, in doing so, it "removes from the market a potentially cost-effective choice for consumers."[20] In affirming to the Commission's integration ban, the D.C. Circuit also recognized, as a matter of sound public policy, that:

> Consumers might have chosen not to purchase retail devices for perfectly sensible economic reasons – because, for instance, there are efficiency gains captured in

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[18] *Id.* at 34 (emphasis in original). Tivo's agreement with DirecTV expires in February 2007.

[19] *Intel ex parte* at 1.

[20] *Reconsideration Order* at 7632 (Commissioner Powell Dissenting in Part).

the manufacture of an integrated box that lead it to cost less than the combined cost of seeking a separate security module and a retail device, or because consumers view as too high the transaction costs of seeking a separate ancillary device at retail. If this is the case, the integration ban does nothing more than deny the most cost-effective product choice to consumers – an ironic outcome for an order implementing "one of the most pro-consumer provisions of the Telecom Act."[21]

We believe the Separate Security Requirement should be eliminated now, or, at the very least, postponed for 18 months, in order for the cable industry to demonstrate both its ongoing support for CableCARD products and that the concerns raised to the Commission by a handful of interested companies are unfounded.

If you have any further questions, please contact me.

Sincerely,

/s/ Neal M. Goldberg

Neal M. Goldberg

cc: Marlene H. Dortch, Secretary, for inclusion in CS Docket No. 97-80
Chairman Michael Powell
Commissioner Kathleen Abernathy
Commissioner Kevin Martin
Commissioner Michael Copps
Commissioner Jonathan Adelstein
Jordan Goldstein
Stacy Robinson Fuller
Johanna Mikes Shelton
Daniel Gonzalez
Kenneth Ferree
Natalie Roisman
Deborah Klein
Bill Johnson
Rick Chessen
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[21] *General Instrument Corp. v. FCC*, 213 F.3d 724, 731-32 (D.C. Cir. 2000). The 2002 House Telecommunications Subcommittee's DTV Transition staff discussion draft made the same point in proposing elimination of the Separate Security Requirement. As then Chairman Tauzin recognized in his opening statement during the hearing on the draft: "[i]ntegrated boxes may very well be more convenient and less expensive for consumers – at the very least, there is another choice for consumers." Statement of Chairman W.J. "Billy" Tauzin before the House Energy and Commerce Subcommittee on Telecommunications and the Internet (Sept. 25, 2002).

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